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Case Report

Oral pemphigus vulgaris: a case report with review of the literature

Saadettin Dağistan, Mustafa Goregen, Ozkan Miloğlu and Binali Çakur

Department of Oral Diagnosis and Oral Radiology, Faculty of Dentistry, Atatürk University, Erzurum, Turkey

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Abstract: Pemphigus vulgaris is a chronic autoimmune mucocutaneous disease that initially manifests in the form of intraoral lesions, which spread to other mucous membranes and the skin. The etiology of pemphigus vulgaris is still unknown, although the disease has attracted considerable interest. The pemphigus group of diseases is characterized by the production of autoantibodies against intercellular substances and is thus classified as autoimmune diseases. Most patients are initially misdiagnosed and improperly treated for many months or even years. Dental professionals must be sufficiently familiar with the clinical manifestations of pemphigus vulgaris to ensure early diagnosis and treatment, since this in turn determines the prognosis and course of the disease. Here, we report a case of pemphigus vulgaris that was misdiagnosed in its earliest stage. (J. Oral Sci. 50, 359-362, 2008)

Keywords: oral ulcerations; pemphigus.

Introduction

Pemphigus vulgaris (PV) is characterized by intraepithelial blister formation that results from breakdown of the cellular adhesion between epithelial cells (1). In 1964, autoantibodies against keratinocyte surfaces were described in patients with pemphigus (2). Clinical and experimental observations indicate that the circulating autoantibodies are pathogenic. An immunogenetic predisposition is well established. Blisters in PV are associated with the binding of IgG autoantibodies to keratinocyte cell surface molecules (3). These intercellular or PV antibodies bind to keratinocyte desmosomes and to desmosome-free areas of the keratinocyte cell membrane (4,5). Pemphigus vulgaris is rare, with a reported incidence of 0.1-0.5 cases per 100,000 individuals worldwide per year. It is slightly predominant in women and primarily manifests in adults during the fifth or sixth decade of life (6). Juvenile cases have been reported, but are rare. In the majority of patients, painful mucous membrane erosions are the presenting sign of PV and may be the only sign for an average of 5 months before skin lesions develop (4).

Correspondence to Dr. Saadettin Dağistan, Department of Oral Diagnosis and Oral Radiology, Faculty of Dentistry, Atatürk University, Erzurum, Turkey
Tel: +90-442-231-1798
Fax: +90-442-236-0945
E-mail: dagistan@atauni.edu.tr

Case Report

A 35-year-old woman was referred to the Department of Oral Diagnosis and Radiology with a two-month history of painful oral ulcers. The patient reported that the lesions caused considerable discomfort and affected her normal oral function. She had received 750 mg of sultamisilin (two times a day for five days) and 200 mg of flurbiprofen (two times a day for five days), but showed no improvement. Personal and family histories were uneventful. On intraoral examination, ulcers were observed on the cheek and palatal mucosa (Figs. 1 and 2) and ventral surface of the tongue (Fig. 3). No skin lesions were seen on extra oral examination. A diagnosis of Pemphigus vulgaris was made after evaluating the biopsy samples (Fig. 4). Histological findings in the case were characterized by suprabasal acantholytic blisters, intercellular edema and disappearance of the intercellular bridge in the lower epithelium. There is usually a mild, superficial, mixed inflammatory cell infiltrate which includes scattered eosinophils. Direct immunofluorescence (DIF) demonstrated IgG in the intercellular regions of the epithelium (Fig. 5).

The patient was referred to the clinical dermatology

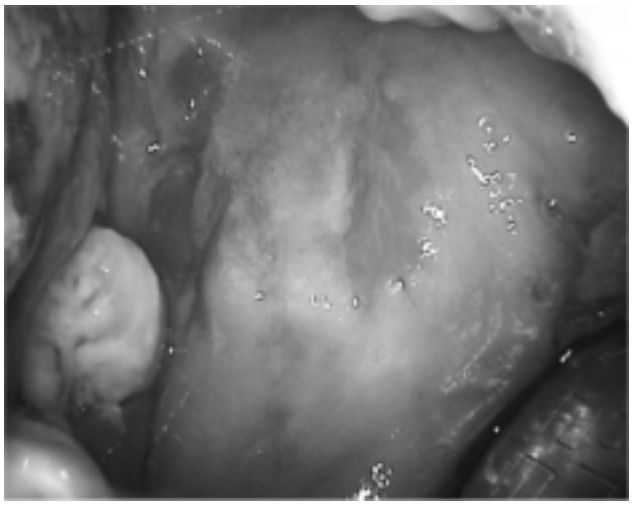

Fig. 1 Multiple ulcers of the cheek mucosa.

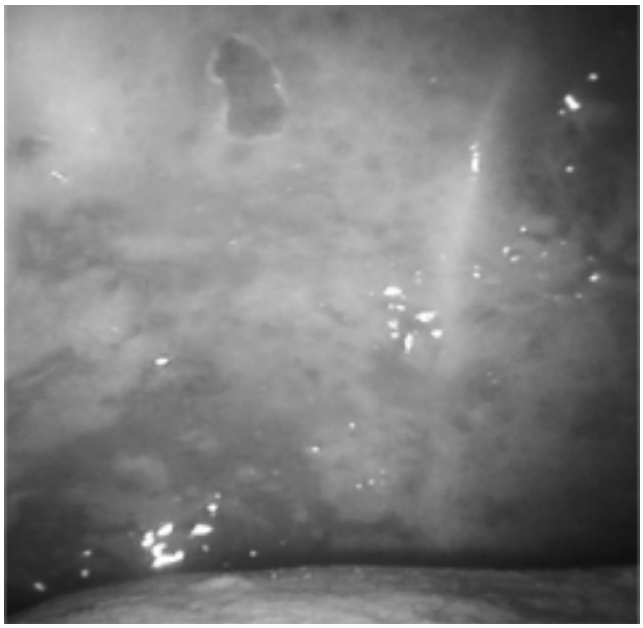

Fig. 2 Ragged ulceration of the palatal mucosa is seen.

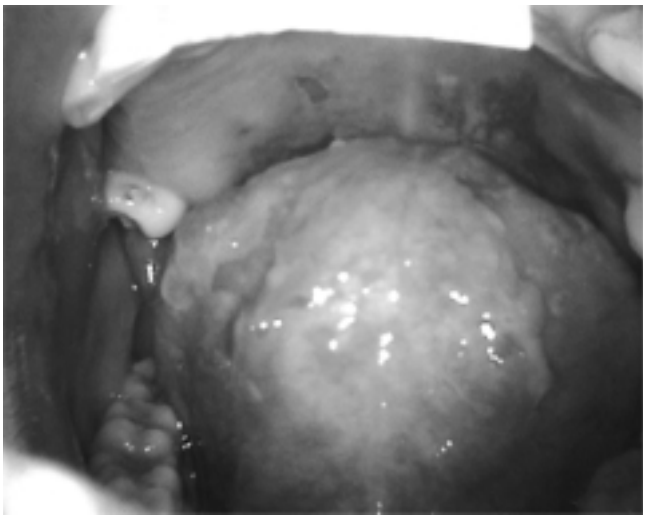

Fig. 3 Ulcers on ventral surfaces of the tongue.

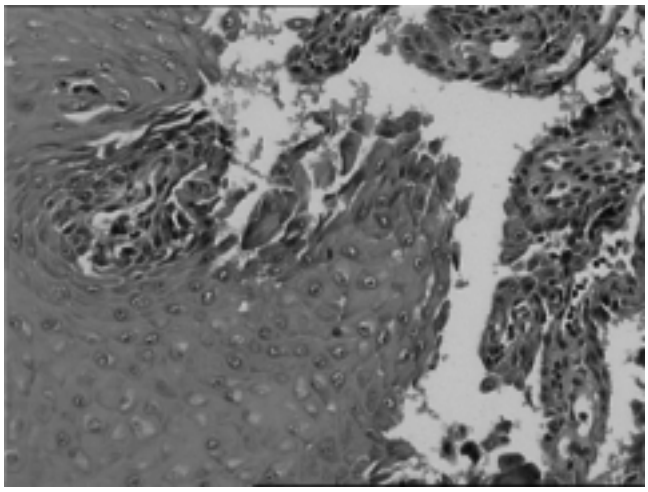

Fig. 4 This low-magnification photomicrograph shows an intraepithelial separation at the level of the basal cell layers (H-E staining, original magnification ×200).

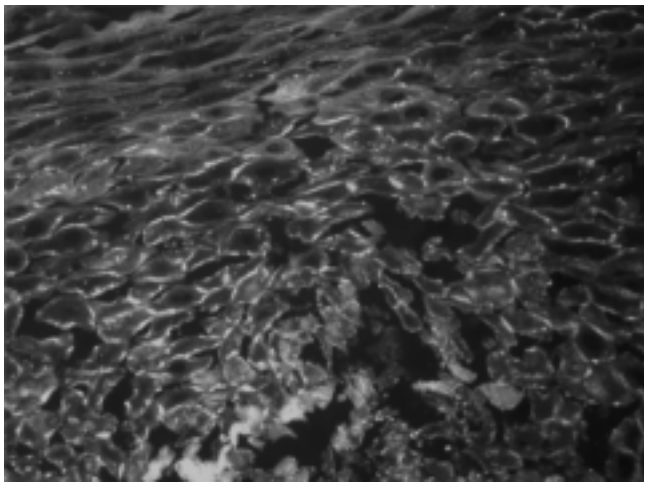

Fig. 5 IgG is deposited in the intercellular regions of the epidermis (Direct immunofluorescence).

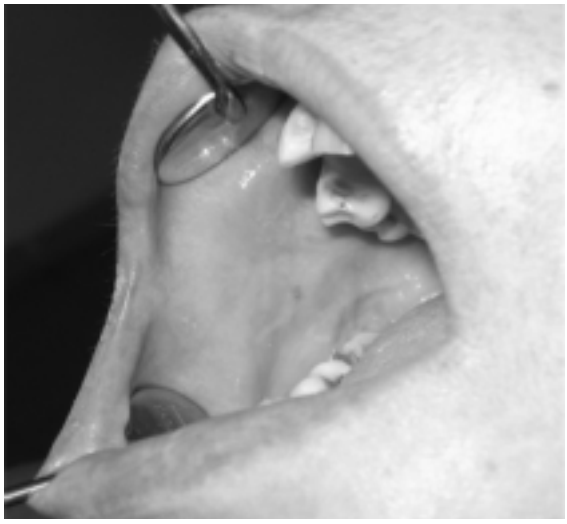

Fig. 6 Cheek mucosa healed without scarring after systemic corticosteroids.

department of the medical college of Ataturk University for treatment. Initially, for a period of 14 days, prednisolone 80 mg and azathioprine 50 mg 2×1 was prescribed to the patient. Treatment continued with the dose of prednisolone increased to 100 mg and azathioprine 50 mg to 3×1 for a period of 14 days. Prednisolone was decreased by 10 mg in the following week. At the end of the 7th week, prednisolone was decreased by 30 mg. The patient recovered; however, she was directed to the clinic for internal diseases due to an increase in liver enzymes. Hepatitis C virus infection was detected on medical examination. In the examination after 1 year of treatment, the ventral surfaces of the tongue, cheek and palatal mucosa had healed without scarring (Fig. 6).

Discussion

In pemphigus vulgaris, lesions at first comprise small asymptomatic blisters, although these are very thin-walled and easily rupture giving rise to painful and hemorrhagic erosions. In most cases (70 to 90%), the first signs of disease appear on the oral mucosa. While the lesions can be located anywhere within the oral cavity, they are most often found in areas subjected to frictional trauma, such as the cheek mucosa, tongue, palate, and lower lip. The ulcerations may affect other mucous membranes, including the conjunctiva, nasal mucosa, pharynx, larynx, esophagus and genital mucosa, as well as the skin where intact blisters are more commonly seen (7). In the present case, the oral lesions were the first manifestation of the disease, mainly in the tongue, palate and, cheek mucosa. The diagnosis is generally based on the oral manifestations, while confirmation is provided by the histological findings, which show the presence of intraepithelial blisters, acantholysis, and Tzanck cells (8). Direct immuno-fluorescence evaluation of the fresh lesion specimens reveals IgG or IgM and complement fragments in the intercellular space (8). In our case, a biopsy of the intraoral lesions was obtained. The specimen sections were stained with Hematoxylin-Eosin, and the principal histological characteristics were evaluated. Direct immunofluorescence studies were also carried out.

Most patients could be initially misdiagnosed, usually as aphthous stomatitis, gingivo-stomatitis, erythema multiforme, erosive lichen planus or oral candidiasis, and may be improperly treated for months or even years.

Other dermatological diseases associated with large bulae on the oral mucosa, which are identified as differential diagnosis of pemphigus vulgaris, should be ruled out. One of them is dermatitis herpetiformis, in which lesions are occasional and not very prominent and manifest as erythemas, 1 to 3 cm in size, that infiltrate the palate and buccal mucosa. Aphthous-like lesions occur on the lip mucosa. However, these oral signs develop at a later stage of the disease, usually several months or years after the appearance of dermatological lesions (4).

Pemphigoid, a bullous dermatitis of autoimmune origin that is relatively uncommon, should be differentiated from pemphigus vulgaris. It may accompany, as a facultative paraneoplastic dermatosis, an underlying malignant disease. The oral mucosa is affected in about every fifth patient. Oral lesions do not precede dermatological symptoms. The bullae on the mucosa are smaller, their duration is short, and remaining erosions heal relatively fast without scars. Oral signs are nearly always missing in other bullous diseases such as pemphigus erythematosus, pemphigus folliaceus or pemphigus benignus familiaris chronicus Hailey, which is important for differential diagnosis (4).

The initial aim of treatment is to induce disease remission. This should be followed by a period of maintenance treatment using the minimum drug doses required for disease control in order to minimize their side-effects (9). Corticosteroids are the primary drugs used in the treatment of pemphigus vulgaris (10-12). Mild localized lesions of oral mucous membrane pemphigus in patients with low titers of circulating auto antibodies may be controlled, at least temporarily, with topical corticosteroid rinses or creams, including agents such as clobetasol proprionate (10,11). Intralesional triamcinolone may be used for resistant local lesions.

Morbidity and mortality are related to the extent of disease, the maximum dose of systemic steroids required to induce remission, and the presence of other diseases. Prognosis is worse in patients with extensive disease and in older patients.

In this article, we describe the management of a patient who had previously undergone treatment based on misdiagnosis and whose complaints were not relieved even after a long time. We also distinguish the diagnosis of oral pemphigus vulgaris, which often results in the patient's death, if untreated, from other similar oral lesions, and the importance of the roles of dentists in early diagnosis and treatment.

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